

US EPA RECORDS CENTER REGION 5



466150



Site Inspection Report

SEE REFERENCE SHEET
FOR SENSITIVE INFORMATION

SITE NAME: Icathane Systems Inc
SITE NUMBER: MND 022 813 306
LOCATION OF DOCUMENT: SEPARATE FILE, RED FOLDER

ESI PRIORITIZATION QUESTIONNAIRE

Site Name: IRATHANE SYSTEMS INC ID# MND022818306
Date Prepared: 8-30-91 Prepared By: NATHAN RUSSELL
Site Location NE1/4 SEC.19, T.57N., R.20W., HIBBING, ST. LOUIS COUNTY, MN
Brief Site History: THE SITE IS APPROXIMATELY 5 ACRES IN SIZE (CONTINUED ON
PAGE 3).

Superfund Preliminary Assessment PA Date (FIT or State): _____ PA Rating: _____
Hazardous Substances of Concern: _____

Migration Pathway(s) of Concern: _____

Type of Documentation of Hazardous Substances: _____

Superfund Site Inspection _____ Date of Inspection (FIT): 4-5-90
Migration Pathways Investigated:
4 ON-SITE SOILS + 1 POTENTIAL BACKGROUND SOIL

Type/Contaminants of Concern Found for each Migration Pathway:
2-BUTANONE (MEK) 140J UG/KG, TOLUENE 61J UG/KG, ARSENIC 45.3NJ MG/KG,
CHROMIUM 908EJ MG/KG, COPPER 1,060 MG/KG, LEAD 1,190NJ MG/KG, MERCURY 411
MG/KG, AND NICKEL 352 MG/KG IN ON-SITE SOIL. THE ABOVE COMPOUNDS AND
ANALYTES ARE DOCUMENTED TO HAVE BEEN USED ON-SITE.

Data Gaps/Migration Pathways not Investigated:
GROUNDWATER SAMPLING WAS NOT CONDUCTED DURING THE SSI BECAUSE OF THE
ABSENCE OF A SUFFICIENT NUMBER OF AVAILABLE WELLS FINISHED IN THE AQUIFER
OF CONCERN (AOC) IN THE VICINITY OF THE SITE. SURFACE WATER MIGRATION
PATHWAY WAS NOT INVESTIGATED BECAUSE NO POTENTIAL OVERLAND MIGRATION
PATHWAYS EXIST AT THE SITE. AIR MIGRATION PATHWAY WAS INVESTIGATED
THROUGH FIT SITE-ENTRY EQUIPMENT BUT NO AIR SAMPLES WERE COLLECTED.

Superfund HRS Score: _____
Actual SI Score: 20.17 Projected HRS Score: 39.12
SSI Rating or Recommendation: RECOMMENDED INSTALLATION OF MONITORING
WELLS, AIR SAMPLING, FURTHER WASTE CHARACTERIZATION, COLLECTION OF
ADDITIONAL SOIL SAMPLES, GEOPHYSICS, AREA SURVEY, THAT FUTURE SPILLS THAT
OCCUR IN STORAGE YARD BE PROMPTLY AND EFFICIENTLY CLEANED UP, AND THAT
WORKERS BE INFORMED OF THE ELEVATED LEVELS OF CONTAMINANTS AND THE
POTENTIAL HEALTH EFFECTS OF THE CONTAMINANTS.

Target Populations:
Distance to nearest public water supply source (well) APPROX. 1.5 MILE S/SW
Distance to nearest private water supply source APPROX. 1 MILE SE

Provide population estimates for the following pathways:

Groundwater

0-1/4 mile 0
1/4-1/2 mile 0
1/2-1 mile 0
1-2 miles ~500
2-3 miles ~20,500
3-4 miles ~1,000

Soil Exposure

On-site ~20 workers
0-1/4 mile ~2,000
1/4-1/2 mile ~2,000
1/2-1 mile ~4,000

*NOTE: SITE IS FENCED WITH LOCKED GATE

AIR

0-1/4 mile ~2,000
1/4-1/2 mile ~2,000
1/2-1 mile ~4,000

1-2 miles ~6,000
2-3 miles ~2,000
3-4 miles ~2,000

Surface Water

Distance to nearest intake >3 MI Population served N/A
Total Population served within 15 miles downstream N/A
Distance to nearest Fishery 1/4 MI NE Name BRYAN LAKE
Distance to nearest sensitive environment ~2 MI Type CRIT.HAB. GREY WOLF
Distance to nearest perennial Surface Water Body 1/4 MI NE Type BRYAN LAKE

Other (non-Superfund) site inspection activities/Other Program Contacts:

MPCA FILE SEARCH AUGUST 28-29, 1991

U.S.EPA/MPCA JOINT INSPECTION CONDUCTED APRIL 1980.

Migration Pathways Investigated: SCRAPINGS FROM MACHINERY AND PLANT FLOOR,
AND POOLED WATER FROM INSIDE PLANT BUILDING (8 SAMPLES TOTAL). SOILS FROM
GROUND OUTSIDE OF PLANT BUILDING AND SURFACE WATER FROM MARSH ADJACENT TO
PLANT BUILDING (3 SAMPLES TOTAL).

Types/Contaminants of concern found for each migration pathway: _____
MOCA, TRICHLOROETHYLENE, METHYLENE CHLORIDE, AND OTHER VOLATILE ORGANIC
COMPOUNDS

Is there PRP/State RI/FS or other remediation underway? (Describe)

IN SUMMER 1990, IRATHANE HAD 3 DRUMS OF CONTAMINATED SOIL (WHERE FIT
COLLECTED SOIL SAMPLE S1 DURING SSI) REMOVED AND DISPOSED OF.

State Comment/Recommendation (to be completed by State):

The ISI site is currently owned by Mesaba Realty Company (Mesaba) of Hibbing. Mesaba purchased the property in October 1981 from Irathane, also of Hibbing. Irathane had owned the property since 1977. According to site representatives, ownership of the property prior to 1977 is not known (Barach 1990; Dallosto 1990).

Two companies are currently operating on-site (see Figure 2-2 for on-site operating boundaries). Irathane, which manufactures urethane-cast parts, such as gears, for the mining industry; and VBL, Inc., which recaps rubber tires used on mining equipment. Irathane has operated on-site for approximately 13 years and has been a division of Illinois Tool Works (ITW) of Chicago, Illinois, since September 1983 (Barach 1990; Dallosto 1990). VBL, Inc., has operated on-site for approximately 10 years (Gnaedinger 1980).

The Irathane facility generates hazardous wastes during the urethane-cast process; the company is classified as a small-quantity generator under the Resource Conservation and Recovery Act (RCRA) (U.S. EPA 1984; Dallosto 1990). The general categories of raw materials used by Irathane include urethane prepolymers and polyols, primers, adhesives, plasticizers, and cleanup solvents (Barach 1990). FIT was denied the information indicating the actual compounds used at the facility (Dallosto 1990).

Irathane's manufacturing process results in two primary waste streams, a liquid and a solid (Barach 1990). The liquid stream from the coatings manufacturing process contains waste solvents; among these waste solvents are methylethyl ketone (MEK), isopropyl alcohol, toluene, and xylenes. Heavy metals are also found in this waste stream (Waste Research and Reclamation Company, Inc. 1984), which is considered to be RCRA-hazardous because of the toxicity of its individual constituents (Barach 1990). In 1989, Irathane produced approximately 1,500 pounds of this waste (Barach 1990).

The solid waste stream results from the periodic flushing of the equipment. This waste is mostly made up of urethane waste and dichloromethane, which is used to flush the equipment. EP toxicity test findings have determined this waste stream's individual constituents to be RCRA-hazardous. In 1989, the Irathane facility generated approximately 14,000 pounds of this waste (Barach 1990). Specific wastes generated there included waste oils (Worum Chemical 1989), waste paint and

related materials (Wisconsin, State of 1990), waste methylene chloride (Wisconsin, State of 1987), and 4,4'-methylene-bis[2-chloraniline] (MOCA) (Gnaedinger 1980; Dallosto 1990).

Transporters currently used by Irathane to haul its hazardous waste include Safety Kleen of La Crosse, Wisconsin, for waste paint and related materials; Van Water and Rogers of Minneapolis, Minnesota for waste methylene chloride; and Worum Chemical Company of St. Paul, Minnesota, for waste oils (Barach 1990).

Currently, all of Irathane's hazardous wastes are placed in 55-gallon drums. The drums are stored in a warehouse area of the on-site building until enough drums are accumulated for transport to appropriate off-site disposal locations (Barach 1990). In the past, Irathane used both the warehouse and a storage yard, which is not diked, completely paved, or curbed, in the southeast corner of the site to store drums containing waste material (Irathane 1981; U.S. EPA 1984).

In the late 1970s and early 1980s Irathane disposed of unknown quantities of wastes generated by the company in two local landfills, Hibbing/Kitzville Dump and Hibbing Sanitary Landfill. MPCA also alleged that Irathane had disposed of waste solvents into the Hibbing municipal sewer system without first acquiring proper permits; however, this report was never verified and Irathane officials deny the allegations (Gnaedinger 1980; Dallosto 1990).

In 1985, MPCA denied an Irathane request to discharge three liquid resin wastes into the Hibbing municipal sewer system. The request was denied because, according to the Material Safety Data Sheets (MSDSs) for the resins, the proper disposal method is incineration (MPCA 1985).

In 1978, State of Minnesota OSHA conducted an inspection of the Irathane facility. This inspection resulted from a complaint by a former Irathane employee who stated that improper safety regulations caused his exposure to chemicals and solvent fumes (U.S. EPA 1984; Dallosto 1990). State of Minnesota OSHA found potential health and safety violations, but there are no records indicating the actual violations (U.S. EPA 1984).

In 1980, U.S. EPA received a "hot line" complaint alleging improper disposal practices at Irathane (U.S. EPA 1984). The person filing the complaint and his relationship to Irathane is not known. In April 1980, U.S. EPA and MPCA conducted a joint inspection at the facility (Gnaedinger 1980). It is not known if this inspection resulted from the "hot line" complaint.

During this inspection, several spills and leaking drums were observed inside the facility. A potential for a discharge of wastes into the Hibbing municipal sewer system was also noted. Officials of Irathane denied that materials had been discharged into the sewer system (Gnaedinger 1980). A number of waste samples were also collected inside the facility during this inspection (Gnaedinger 1980). These samples were analyzed and found to contain MOCA, trichloroethylene, methylene chloride, and other volatile organic compounds (U.S. EPA 1984).

In June 1981, Irathane informed MPCA that the company was in the process of cleaning up its storage yard to comply with MPCA regulations for storage of hazardous wastes. Irathane officials indicated that the storage yard would be cleaned up by July 21, 1981 (Irathane 1981). FIT has no information that indicates this cleanup action was the result of any regulatory agency request; it is also not known whether any MPCA inspections took place in response to the cleanup of the site. MPCA, however, does conduct yearly RCRA compliance inspections at the facility, and no violations involving the storage yard have been reported (Dallosto 1990).

Site representatives indicated that the only spill that took place in the storage yard occurred in March 1990 and was the result of approximately 25 pounds of a possibly hazardous waste leaking from a drum (Barach 1990). This material was collected and placed into two 55-gallon drums, which were stored in the warehouse; these drums were to be transported off-site (Barach 1990).

According to federal, state, and local records, no enforcement actions have been initiated against the Irathane facility.